

WHAT IS CLAIMED IS:

- 10007692-121001
1. A die assembly, comprising:
- a base;
  - a lower, adjustable post having a base-contacting surface that is mounted for linear movement with respect to said base between a first cutting position and a second cutting position, including movement in a first direction;
  - a first force applying mechanism coupled to said base and to said adjustable post to move said adjustable post between said first cutting position and said second cutting position;
  - an upper, impacting post being movable between an impact position proximate to said adjustable post and an elevated, removed position in which said impacting post is displaced away from said impact position and said adjustable post, including being movable in a second direction that is transverse to said first direction; and
  - a second force applying mechanism coupled to said impacting post to move said impacting post between said removed position and said impact position.
2. A die assembly according to claim 1, wherein said base has a substantially flat upper surface for supporting said adjustable post.
- ✓ 3. A die assembly according to claim 1, wherein said adjustable post is slidably coupled to said base.
- ✓ 4. A die assembly according to claim 2, wherein said base-contacting surface is substantially flat and moves along said upper surface of said base in substantially horizontal directions.

5. A die assembly according to claim 1, wherein said first force applying mechanism is a pressure cylinder.

6. A die assembly according to claim 1, wherein said pressure cylinder contains nitrogen.

7. A die assembly according to claim 1, wherein said adjustable post includes a first side and a second side, which is opposite to said first side, and said first force applying mechanism includes a first pressure cylinder positioned adjacent to said first side of said adjustable post to apply pressure on said first side of said adjustable post and a second pressure cylinder positioned adjacent to said second side of said adjustable post to apply pressure on said second side of said adjustable post.

8. A die assembly according to claim 1, wherein said second force applying mechanism is supported by said base and positioned above said base.

9. A die assembly according to claim 1, wherein said second force applying mechanism includes a pressure cylinder.

10. A die assembly according to claim 1, wherein said first direction is along a first axis and second direction is along a second axis.

11. A die assembly according to claim 1, wherein said impacting post moves along a fixed, substantially vertical cutting axis.

12. A die assembly according to claim 1, further comprising:  
a first stop attached to said base in a first predetermined position on said base and aligned with said adjustable post to prohibit said adjustable post from moving beyond said first predetermined position.

13. A die assembly according to claim 12, further comprising:  
a second stop attached to said base in a second predetermined position on said base  
and aligned with said adjustable post to prohibit said adjustable post from moving  
beyond said second predetermined position.

14. A die assembly according to claim 10, further comprising:  
a gib attached to said base and coupled to said adjustable post to permit  
movement of said adjustable post only along a single axis.

15. A method of cutting, comprising:  
providing a die assembly having a base, an adjustable post coupled to the  
base in a first position such that the adjustable post is linearly movable with respect  
to the base, and an impacting post movable between an impact position proximate to  
the adjustable post and a removed position in which the impacting post is displaced  
away from the impact position and the adjustable post;  
inserting a first piece of a first material between the adjustable post and the  
impact post, the first piece of the first material having a first thickness;  
moving the impacting post along a fixed cutting axis from the removed  
position to the impact position and cutting the first piece of the first material;  
moving the impacting post to the removed position;  
sliding the adjustable post along the base to a second position;  
inserting a first piece of a second material between the adjustable post and  
the impact post, the first piece of the second material having a second thickness; and  
moving the impacting post along the fixed cutting axis from the removed  
position to the impact position and cutting the first piece of the second material.

16. A method according to claim 15, further comprising:  
after cutting the first piece of the first material, moving a second piece of the  
first material between the adjustable post and the impact post;

moving the impacting post along the fixed cutting axis from the removed position to the impact position and cutting the second piece of the first material; and moving the impacting post to the removed position.

17. A method according to claim 15, wherein inserting the first piece of the first material between the adjustable post and the impact post, includes inserting a first section of a continuous roll of the first material.

18. A die assembly, comprising:  
a base;  
an adjustable post having a base-contacting surface that is slidably coupled to said base;  
a first force applying mechanism coupled to said base and to said adjustable post to move said adjustable post between a first cutting position and a second cutting position;  
a second force applying mechanism; and  
an impacting post attached to said second force applying mechanism and movable by said second force applying mechanism between an impact position proximate to said adjustable post and a removed position in which said impacting post is displaced away from said impact position and said adjustable post.

19. A die assembly according to claim 18, wherein said base has a substantially flat upper surface for supporting said adjustable post.

20. A die assembly according to claim 19, wherein said base-contacting surface is substantially flat and moves along said upper surface of said base in substantially horizontal directions.

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